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National Energy Conservation Day 2020

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Why in News

The National Energy Conservation Day is organized on **14th December every year** by the **Bureau of Energy Efficiency (BEE)** with an aim to showcase India's achievements in energy efficiency and conservation.

The **National Energy Conservation Awards** are given on the occasion.

Key Points

- **Energy Conservation:**
 - It is **any behavior that results in the use of less energy.**
Turning the lights off when leaving the room and recycling aluminum cans are both ways of conserving energy.
 - It is **different from the term 'energy efficiency'**, which is using technology that requires less energy to perform the same function.
Using a Light-Emitting Diode (LED) light bulb or a Compact Fluorescent Light (CFL) bulb that requires less energy than an incandescent light bulb to produce the same amount of light is an example of energy efficiency.
 - The **Energy Conservation (EC) Act was enacted in 2001** with the goal of **reducing the energy intensity of Indian economy.**
The **Bureau of Energy Efficiency (BEE)** was set up as the **statutory body** in 2002 at the central level to **facilitate the implementation of the EC Act.**
It functions under the **Ministry of Power.**
 - **India's energy demand is expected to double between 2013 and 2030**, to approximately 1500 million tons of oil equivalent.
- **Energy Conservation Act, 2001:** The Act provides **regulatory mandates** for:
 - Standards & labeling of equipment and appliances;
 - Energy conservation building codes for commercial buildings; and
 - Energy consumption norms for energy intensive industries.

- **National Energy Conservation Awards:**
 - These Awards are given by eminent dignitaries of the Government of India **to Industries, Buildings, Transport and Institutions sectors along with Energy Efficient Manufacturers** to recognize innovation and achievements made by them in energy conservation.
 - The awards were **given for the first time on 14th December, 1991**, which is celebrated as “**National Energy Conservation Day**” throughout the country.
- **Schemes To Promote Energy Conservation and Energy Efficiency:**

- The Ministry of Power through the BEE is implementing various policies and schemes viz. PAT Scheme, Standard and Labelling, Energy Conservation Building Codes and Demand Side Management.
 - **PAT Scheme:**
 - **Perform Achieve and Trade Scheme (PAT)** is a **market based mechanism** to enhance the cost effectiveness in improving the Energy Efficiency in Energy Intensive industries through certification of energy saving which can be traded.
 - It is a part of the **National Mission for Enhanced Energy Efficiency (NMEEE)**, which is one of the **eight missions** under the **National Action Plan on Climate Change (NAPCC)**.
 - **Standards and Labeling:**
 - The scheme was **launched in 2006** and is currently invoked for equipments/appliances Room Air Conditioner (Fixed/VariableSpeed), Ceiling Fan, Colour Television, Computer, Direct Cool Refrigerator, Distribution Transformer, Domestic Gas Stove, General Purpose Industrial Motor, LED Lamps, Agricultural Pumpset, etc.
 - It **provides the consumer an informed choice** about the energy saving and thereby the cost saving potential of the relevant marketed product.
 - **Energy Conservation Building Code (ECBC):**
 - It was **developed for new commercial buildings in 2007**.
 - ECBC sets **minimum energy standards** for new commercial buildings having a connected load of 100kW (kilowatt) or contract demand of 120 KVA (kilovolt-ampere) and above.
 - BEE has also developed a **voluntary Star Rating Programme** for buildings which is based on the actual performance of a building, in terms of energy usage in the building over its area expressed in kWh/sq. m/year.
 - **Demand Side Management:**
 - DSM is the selection, planning, and implementation of measures intended to have an influence on the demand or customer-side of the electric meter.
- Furthermore, the development of **Energy Conservation Guidelines** and **State Energy Efficiency Preparedness Index** are complimented within different sectors of Industries and States for implementing the energy efficiency programmes more effectively.
- India's **first convergence project** to generate green energy for rural and agriculture consumption is set to come up in Goa.

- **Global Efforts:**
 - **International Energy Agency:**
 - It works with countries around the world to shape energy policies for a secure and sustainable future.
 - **India** is not a member country but an **association country**.
 - The IEA and Energy Efficiency Services Ltd. (EESL - Ministry of Power) co-produced a case study on the Indian Government's domestic efficient lighting programme - **UJALA** - to showcase the multiple benefits of energy efficient lighting.
 - **Sustainable Energy for All (SEforALL):**

It is an **international organization** that works in partnership with the United Nations and leaders in government, the private sector, financial institutions and civil society to drive faster action towards the achievement of **Sustainable Development Goal 7 (SDG7)** – access to affordable, reliable, sustainable and modern energy for all by 2030 – in line with the **Paris Agreement** on climate.
 - **Paris Agreement:**
 - It is a **legally binding international treaty** on climate change. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.
 - As a part of the Paris Agreement, India has committed to **reducing its energy intensity** (units of energy use per unit of GDP) by 33-35% by 2030 compared to the 2005 levels.
 - **Mission Innovation (MI):**
 - It is a **global initiative of 24 countries and the European Commission** (on behalf of the European Union) to accelerate clean energy innovation.
 - **India** is one of the **member countries**.

Way Forward

- The high ambitions of citizens to live and work in comfortable air conditioned spaces with appliances providing ease of living will lead to a multi fold increase in energy consumption. An approach to change the course of energy use behaviour through energy efficiency programmes is needed to **curb future energy demand**.
- It is crucial for India to push for the expansion of the **Nearly Zero Energy Buildings (NZEB) programme** to all segments of the construction sector. The objective of this programme is to develop a framework for conventional buildings to achieve low energy use per unit area.

- Also, India's power sector is slated for a revamp with multiple policy level changes through the **amendment of the Electricity Act**. One of the major initiatives as a solution to issues like low billing efficiencies leading to revenue losses, heavy transmission and distribution losses, monitoring of electricity consumption, etc. is **installation of smart meters**. The installation of smart meters at a fast pace can help India in **facilitating energy efficiency interventions at a large scale**.
- Embracing **an energy efficient lifestyle** will provide a positive impetus towards transformation of India's energy system for the better. Energy efficiency interventions are one of the most cost-effective means of achieving **a low carbon transition**.